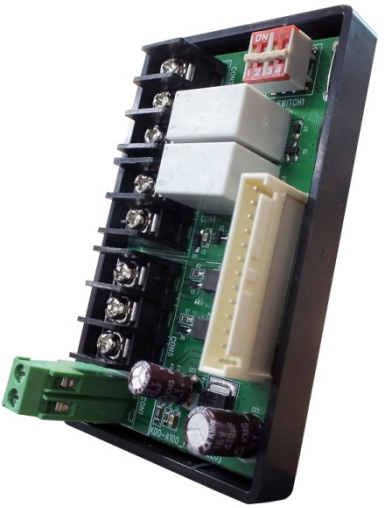

NAVIEN

ComfortAir+

Installation Manual

Add-on Controller Installation Kit

NPE-180A/240A

This device is designed to work with NPE-180A/240A models ONLY.

⚠ WARNING

All Installations should be done only by a qualified expert and in accordance with the appropriate Navien manual. Installing an electric appliance with improper methods or materials may result in serious injury or death due to fire.

ELECTRICAL SHOCK HAZARD. Disconnect power before installing or servicing. This can cause severe personal injury, death, or substantial property damage if ignored.

All wiring must be installed in accordance with local regulations of the installation site.

When Installing this Product:

1. Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.

2. Check the ratings given in the instructions and on the product to make sure the product is suitable for the application.

3. Installers must be trained, experienced, and licensed service technicians.

4. Follow local codes for installation and application.

After installation is complete, check the product's operation by following the instructions provided in this manual.

Note

All wiring must be installed in accordance with local regulations of the installation site.

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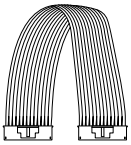
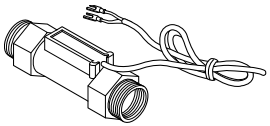
1. About the ComfortAir+

Navien ComfortAir+ is an add-on controller for the Navien NPE-180A/240A water heaters. It adds input and output functions to the NPE-180A/240A water heaters for a combination application where space heating and domestic hot water (DHW) are supplied simultaneously. With this add-on controller, a thermostat (1 or 2-stage) and an outdoor sensor can be installed along with a hydronic air handler to add space heating functionality to the system.

1.1 Included Items

The product is supplied with an installation kit. Make sure that the installation kit contains the following items before installing the product.

Navien ComfortAir+ Add-on Controller	**Installation Manual**
	
Main Control Connector (13-pin cable for connection to NPE-180A/240A water heaters)	**Outdoor Temperature Sensor (with cable)**
	
Flow Switch (with cable)	

1.2 Specifications

Refer to the following table for product specifications.

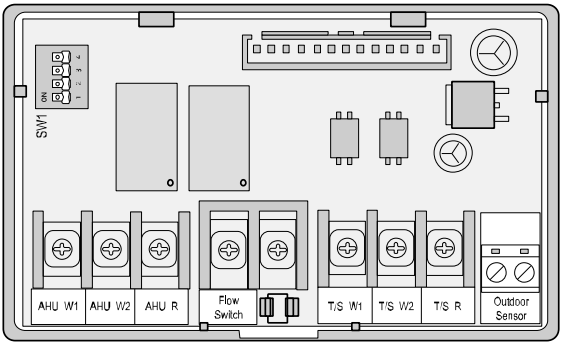
Items	Specifications
Model name	KDO-A100
Device type	Add-on controller for Navien NPE-180A/240A water heaters
Installation type	Snap-on (onto the NPE-180A/240A water heater PCB tray)
Connections	**Main connector socket to water heater** Main control connector (13-pin cable) **Thermostat input terminals** Contacts for one thermostat (1 or 2-stage) **Outdoor sensor connection terminal** Contacts for one outdoor sensor **Output terminal to the air handler unit** Contacts for one AHU (1 or 2-stage)

1.3 CSA P.9 –11 Rating

Combo System		CSHE	WHPF	Recovery Efficiency	TPF
Heat Generator	Fan Coil				
NPE-180A	MMVE0S4NAAA	94 (%)	0.96	97 (%)	0.94
NPE-240A	MMVE0M4NAAA	95 (%)	0.95	96 (%)	0.95

1.4 Device Layout

Refer to the following diagram for the product layout.



1.4.1 Wiring Connection Table

Terminal	Wiring Connection
AHU W1	Connect to AHU W1
AHU W2	Connect to AHU W2
AHU R	Connect to AHU R
Flow switch	Flow switch input terminal
T/S W1	Connect to thermostat W1
T/S W2	Connect to thermostat W2
T/S R	Connect to thermostat R
Outdoor Sensor	Outdoor sensor input

1.4.2 Dip Switch Function Table

SW (DIP 1–4)	ON	OFF	Default
DIP 1	Outdoor reset not in use	Outdoor reset in use	OFF
DIP 2	Simultaneous DHW and heating*	DHW priority	OFF
DIP 3	2-stage thermostat using	1-stage thermostat using	OFF
DIP 4	Reserved		OFF

* Depending on the DHW flow rate (demand), simultaneous DHW and heating may not be available. When the DHW demand is high, DHW supply takes priority and the heating may be temporarily turned off until the DHW demand decreases, even when this function is activated.

2. Installing the Device

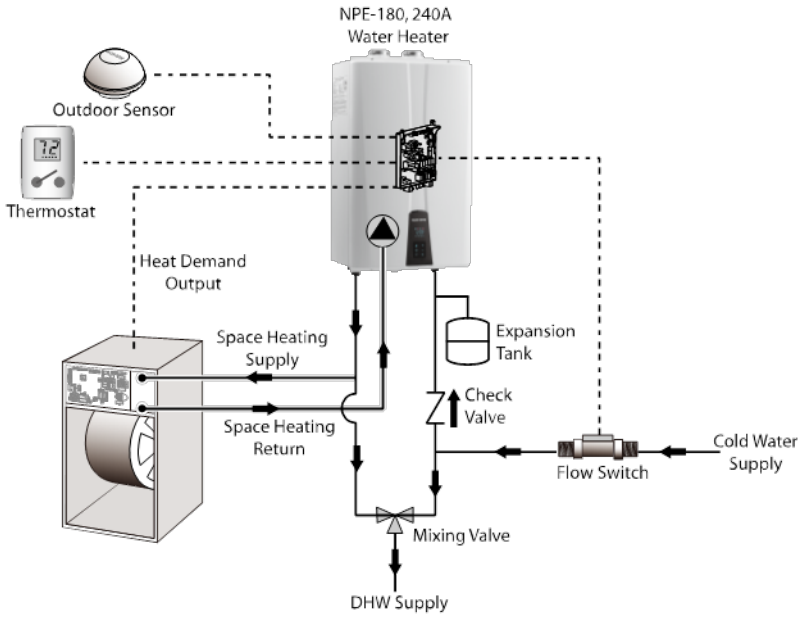
This section provides information required to install the ComfortAir+ add-on controller in an NPE-180A/240A water heater.

> **WARNING**
>
> Ensure that you have turned off the power to the water heater before installing the device.

2.1 Basic Principles

The following diagram shows the basic operation of an NPE-180A/240A water heater system with the ComfortAir+ add-on controller.

System Diagram



WARNING

A mixing valve must be installed in the system in order to limit the DHW output temperature and prevent scalding. Setting the mixing valve to 115–120°F is recommended.

Note

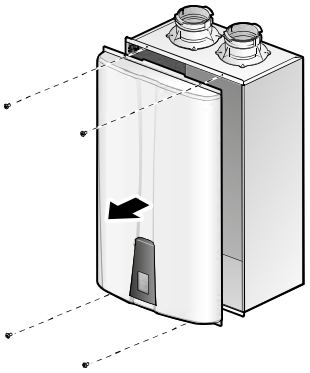
- Install a spring check valve for vertical pipe runs. Do not use a swing check valve with vertical piping.
- Install either a spring check valve or a swing check valve in a horizontal pipe run.
- An outdoor sensor and a flow switch are supplied with the product.
- Use 18 AWG cables for thermostat wiring.
- Install NSF certified mixing valves and expansion tanks ONLY.

2.2 Installing the Device in an NPE-180A/240A Water Heater

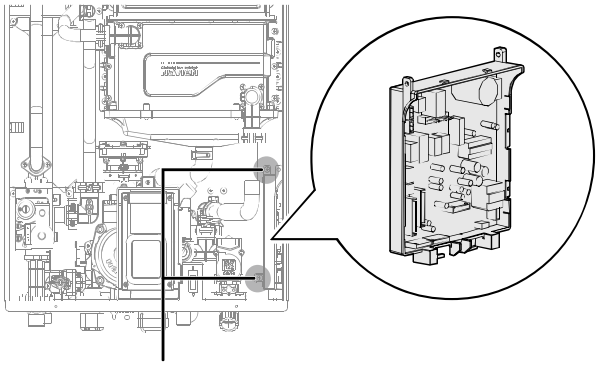
Follow the instructions to install the Navien ComfortAir+ in an NPE-180A/240A water heater.

1. Turn off the power supply to the water heater.

2. Remove the water heater's front cover by loosening the four screws securing it to the case.



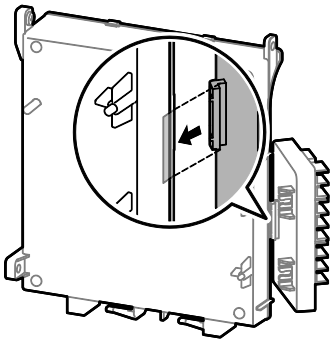
3. Remove the two screws holding the PCB tray in place and pull out the PCB tray from the unit.



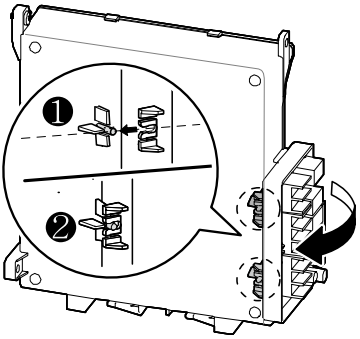
Remove screws here.

4. Verify the current PCB version of the NPE water heater.
   - **For OLD PCB Version KDC-330-5M P12**: The PCB must be replaced with an updated version. Remove all the cables and connectors from the PCB and replace with the latest PCB version that is compatible with the ComfortAir^{+} kit. Reconnect all the cables and connectors to the PCB. Proceed to the next step.
   - **For NEW PCB Version KDC-330-5M P20**: The existing PCB can be used. Pull out the PCB from the tray but do NOT disconnect any cables or wires. Proceed directly to the next step.

5. Install the ComfortAir^{+} onto the NPE-180A/240A water heater's PCB tray. Align the latch at the back of the case with the front lip of the PCB tray.



6. Align the two latches at the back of the ComfortAir+ with the two catch bars at the back of the water heater's PCB tray. Then pivot the ComfortAir+ onto the PCB tray until the latches snap-on to the catch bars.



7. Connect cables to the ComfortAir+. For more details, refer to "3.2 Cable Connections", on page 15.

8. Set the proper DIP switches for the desired installation setup. For more details, refer to "1.4.2 Dip Switch Function Table", on page 7.

9. Replace the PCB tray back into the water heater and secure it with the two screws.

10. Close the front cover and secure it with the 4 screws.

CAUTION

Before disconnecting cables inside the unit, label all cables. Wiring errors can cause improper operation and dangerous situations. Verify wiring connections and unit operation after servicing.

3. Wiring the Device

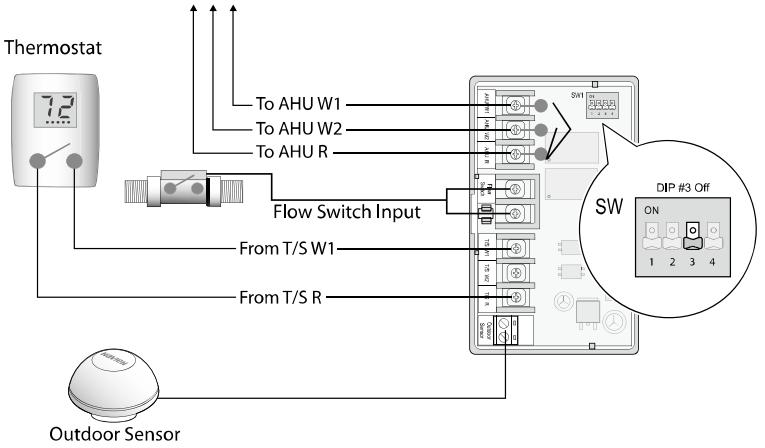
This section provides information required to plan and install the system wiring.

3.1 System Wiring Examples

Refer to the following wiring diagrams to properly install wiring for various setups you may need in your system. Set DIP switch (SW) #3 as specified for each configuration.

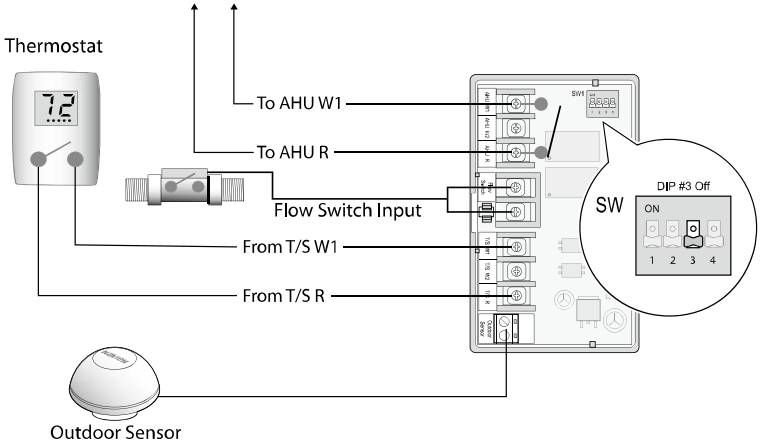
3.1.1 1-Stage Thermostat / 2-Stage Control Heating System

Set DIP switch (SW) #3 to 'Off' to configure the system to use a 1-stage thermostat/ 2-stage control.



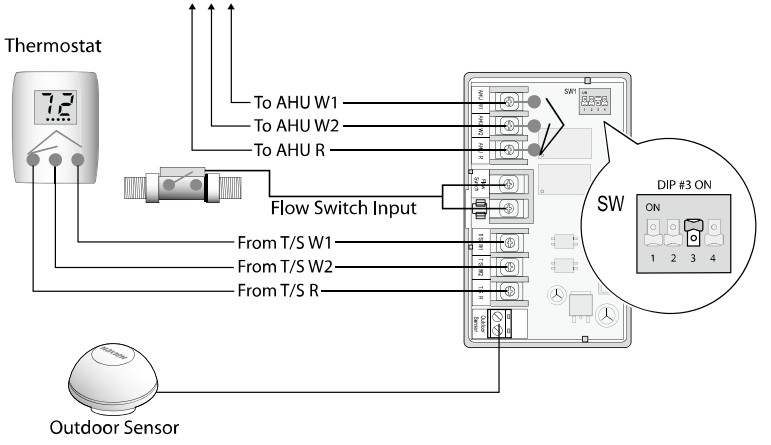
3.1.2 1-Stage Thermostat / 1-Stage Control Heating System

Set DIP switch (SW) #3 to 'Off' to configure the system to use a 1-stage thermostat / 1-stage control.



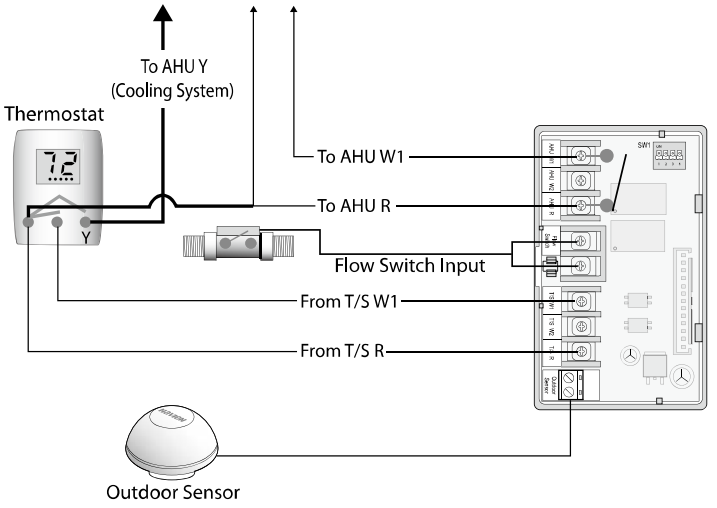
3.1.3 2-Stage Thermostat / 2-Stage Control Heating System

Set DIP switch (SW) #3 to 'On' to configure the system to use a 2-stage thermostat / 2-stage control.



3.1.4 Configuring the Cooling System (for a Heating / Cooling Combo System)

To configure the cooling system, connect the thermostat **Y** terminal to the AHU cooling input terminal **Y**, and connect the thermostat **R** terminal to the **AHU R** output.

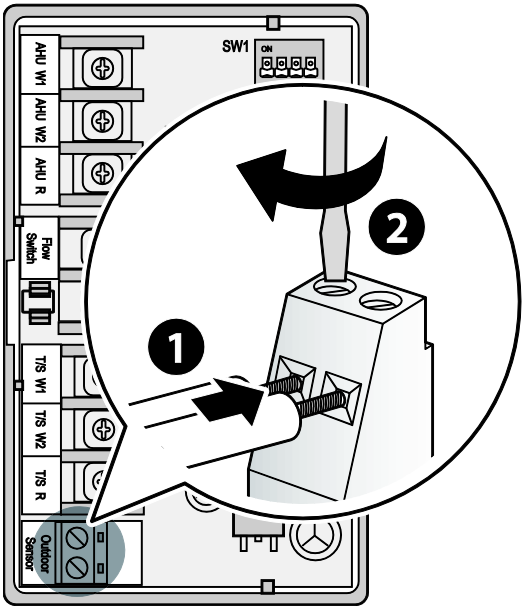


3.2 Cable Connections

Follow the instructions below to connect the cables to the ComfortAir+.

3.2.1 Connecting the Outdoor Temperature Sensor Cable

An outdoor temperature sensor is supplied with the Navien ComfortAir+ installation kit. Insert the exposed wire into the terminal. Then tighten the terminal screw with a screwdriver.

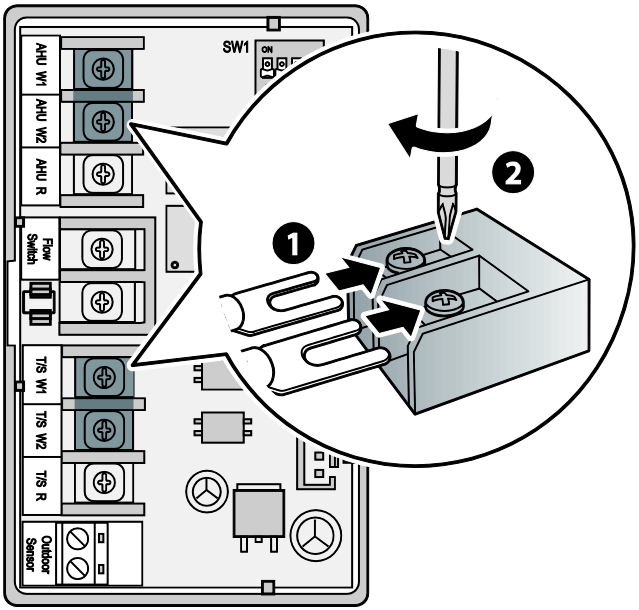


Note

- Use thermostat wire (18 gauge wire) for the outdoor temperature sensor connection.
- When installing the outdoor temperature sensor, avoid installing it in direct sunlight.

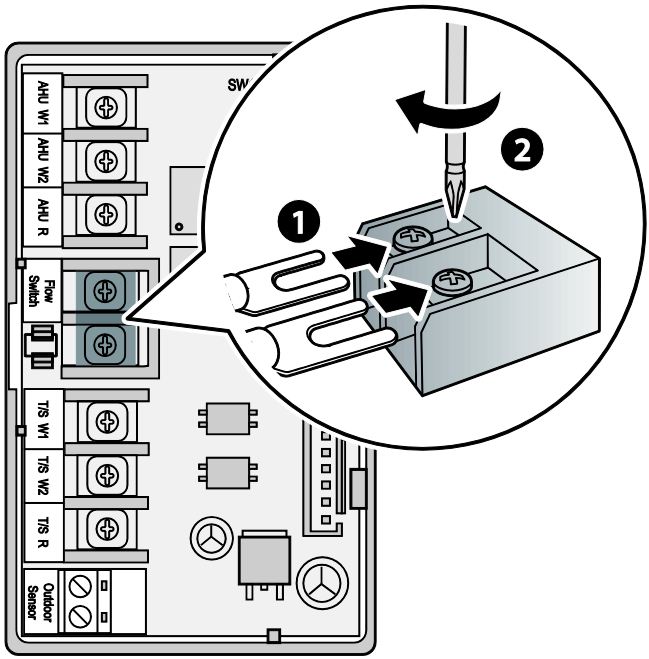
3.2.2 Connecting the Thermostat Cables

The ComfortAir^{+} receives input signals from thermostats to control the AHU. Insert the fork connector into the contact. Then tighten the terminal screw with a screwdriver.



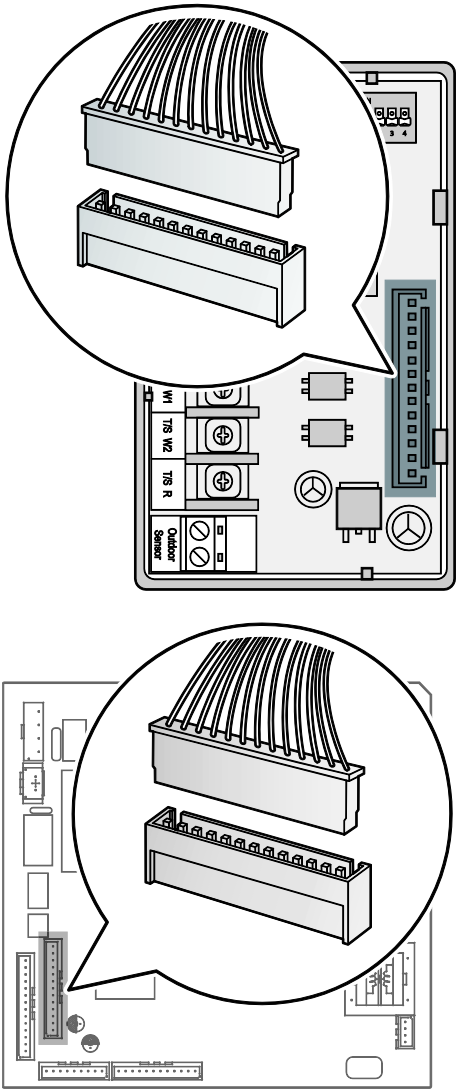
3.2.3 Connecting the Flow Switch Cables

Insert the fork connector into the contact. Then tighten the terminal screw with a screwdriver.



3.2.4 Connecting the Main Control Connector

To connect the ComfortAir^{+} to the Navien NPE-180A/240A water heater, use the 13-pin main control connector supplied with the Navien ComfortAir^{+}. Connect one end of the cable to the connector socket on the ComfortAir^{+} PCB. Then, connect the other end to the connector socket on the NPE-180A/240A water heater PCB.



4. Configuring the Device

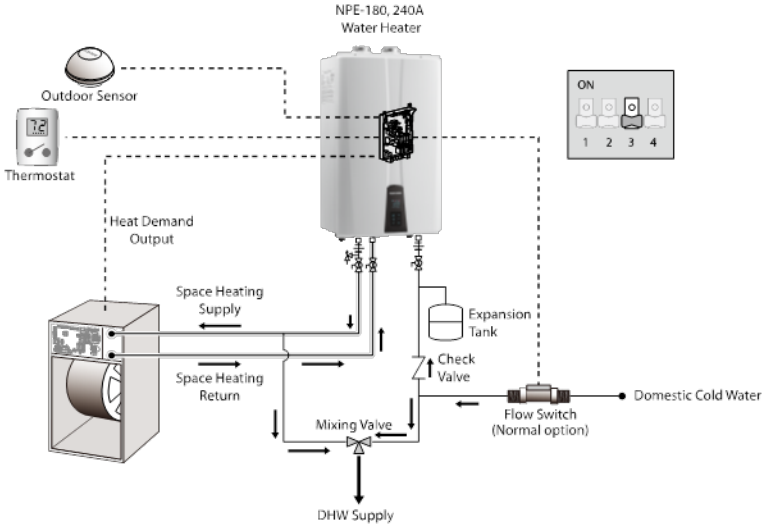
This section provides the information required to set the desired options for the NPE-180A/240A water heater system with the ComfortAir^{+} add-on controller.

4.1 Pump Control Options

> **CAUTION**
>
> The drawings in this instruction are intended only as a guide and are not replacements for professional engineering drawings. This drawing represents a concept system and does not imply compliance with local building codes. Actual installation requirements may vary depending on installation locations and parameters. All installation work must be carried out in accordance with all local building codes. Verify with local building officials before commencing system installation.

The following example demonstrates the application of pump control configuration options.

A System with the Internal Circulation Pump



Set the 2-way valve inside the water heater to 'EXT'. For more information about settings, refer to "Selecting a Recirculation Mode ("A" model only)" in the Water Heater Installation Manual.

> **WARNING**
>
> An anti-scalding device must be installed in the system in order to limit the DHW output temperature and prevent scalding. Setting the valve to 115-120˚F is recommended.

Note

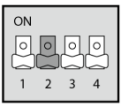
- Install a spring check valve for vertical pipe runs. Do not use a swing check valve with vertical piping.
- Install either a spring check valve or a swing check valve for a horizontal run.
- An outdoor sensor and a flow switch are supplied with the product.
- Use 18 AWG wires for thermostat installation.
- Install certified mixing valves and expansion tanks ONLY.

4.2 DHW Priority Options

Refer to the following options to configure the system's DHW supply modes.

4.2.1 DHW Priority Mode

When the system is configured for the DHW priority mode, space heating does not operate if there is DHW demand (the flow switch is 'closed').

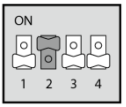


Set the DIP switch (SW) #2 to 'Off' to configure the system to operate in the DHW priority mode.

4.2.2 Simultaneous DHW and Space Heating Mode

When the system is configured for simultaneous DHW and Space heating mode, both DHW and space heating will be supplied at the same time. However, when DHW demand becomes high, the system automatically turns off the space heating. The system will continue in this mode until it determines that DHW demand has reduced from high demand to moderate or low demand.* Please see appendix for water heater performance specifications.

*The system determines that DHW demand is high and stops supplying the space heating when the water heater is running at or above 85% of its maximum capacity.



Set the DIP switch (SW) #2 to 'On' to configure the system to operate DHW and space heating mode simultaneously.

5. Configuring the NPE-180A/240A Water Heater

This section provides information required to properly configure the NPE-180A/240A water heater to setup and utilize the functions provided by the ComfortAir+ add-on controller.

5.1 Entering the Service Information Mode

Follow the instructions below to access the Service information mode.

1. At <Normal operation mode>, press the [Diagnostic] button once to access the service information screen.

2. If you press the [+] / [-] button, the value for the selected item is increased or decreased. Then, the adjusted value is displayed.

3. The currently-selected information data item is identified with an alphabet character prefix followed by 3 digits of the relevant data.

4. Press the [Reset] button once to return to <Normal operation mode>.

Note

If no buttons are pressed for 1 hour, then it automatically returns to the <Normal operation mode>.

Item	Description	Display	
(T) Outdoor temperature	Displays current outdoor temperature		Outdoor reset OFF (Dip switch #1 'ON')
			Outdoor reset On(Dip switch #1 'OFF') e.g.) 50˚F
(U) Heating temperature based on the outdoor temperature	Displays the heating temperature based on the current outdoor temperature		Outdoor reset OFF (Dip switch #1 'ON')
			Outdoor reset On(Dip switch #1 'OFF') e.g.) 120˚F

5.2 Entering the R&D Information Menu

This section describes how to enter the R&D information mode to configure various parameters and control system functions.

5.2.1 Entering the R&D Information Menu

Follow the instructions below to enter the R&D information menu.

1. On the Front panel, press the Power button to turn off the water heater.

2. Enter the R&D information menu by pressing the Up (+) button three times, the Down (-) button three times, and then the Up (+) button four more times.

3. In the R&D information menu, use the Up (+) or Down (-) buttons to move to 2.PAR (Parameter information mode), and then press the Info button.

No.	Mode	Display
1	Technical Information	
2	Parameter Information	

4. To return to the previous menu (R&D information menu), press the [Reset] button once.

5.3 Parameter Table

The following table lists the parameters used to configure the water heater system functions.

No.	Mode	Display
4	Pump Exercise Operation Time	
5	Burn Delay Time	
6	Pump Post Purge Time	
7	Outdoor Low Temperature Set-point	
8	Outdoor High Temperature Set-point	
9	CH MIN Set-point	
10	CH MAX Set-point	
11	2-Stage T/S Output Heat-Capacity	

5.4 Configuring Water Heater Functions

This section describes the water heater functions and provides the information required to configure the parameters for the desired operation.

5.4.1 Pump Exercise Operation Time (P04)

The pump exercise function is designed to prevent the stagnation of hot water in the heating system.

The pump exercise function operates every 24 hours. Pump exercise operation time function sets the desired pump exercise operation time differently depending on the plumbing as well as environmental conditions.

With this option activated, the NPE-180A/240A water heater monitors the pump operation. When it detects that a pump has not been used for a specific period, it runs the pump for a set duration. If the flow rate is not detected while the pump is operating, the 'E438' error message is displayed.

To change the pump exercise operation time:

1. In the Parameter information time mode, use the Up (+) or Down (-) buttons to select P.04. Then, press the Info button to enter the Pump exercise operation time mode.

2. In the Pump exercise operation time mode, use the Up (+) or Down (-) buttons to change the value and press the Info button to set to the desired mode.

Range	Description	Display
1–240(sec)	Sets the exercise operation time (default: 30 sec)	

Note

- If no buttons are pressed for 10 seconds or if the Info button is pressed, the current parameter value will be saved automatically.
- To return to the <PARAMETER INFORMATION MENU MODE>, press the [Reset] button once.
- If no buttons are pressed for five minutes, the display will automatically return to the <PARAMETER INFORMATION MENU MODE>.
- While the pump is excising, the burner will not fire.

5.4.2 Burn Delay Time (P.05)

This function is used to set the burner delay time at an optimal value for the air handler application. If there is no burner delay time, the water heater might turn on or off once or twice during the air handler delay time.

To change the burner delay time:

1. In the Parameter information time mode, use the Up (+) or Down (-) buttons to select P.05. Then, press the Info button to enter the Burn delay time mode.

2. In the Burn delay time mode, use the Up (+) or Down (-) buttons to change the value and press the Info button to set to the desired mode.

Range	Description	Display
0	Burn delay time unavailable	
1–120 (sec)	Sets the pump ON delay time when the heating is turned on (default: 30 sec).	

Note

- If no buttons are pressed for 10 seconds or if the Info button is pressed, the current parameter value will be saved automatically.
- To return to the <PARAMETER INFORMATION MENU MODE>, press the [Reset] button once.
- If no buttons are pressed for five minutes, the display will automatically return to the <PARAMETER INFORMATION MENU MODE>.

5.4.3 Pump Post Purge Time (P.06)

This function is used to set the post purge time after a combustion cycle is completed.

To change the pump post purge time:

1. In the Parameter information time mode, use the Up (+) or Down (-) buttons to select P.06. Then, press the Info button to enter the Pump post purge time mode.

2. In the Pump post purge time mode, use the Up (+) or Down (-) buttons to change the value and press the Info button to set to the desired mode.

Range	Description	Display
0	Pump post purge time unavailable	
1–120 (sec)	Sets the pump post purge time when heating stops in a system (default: 30 sec).	

Note

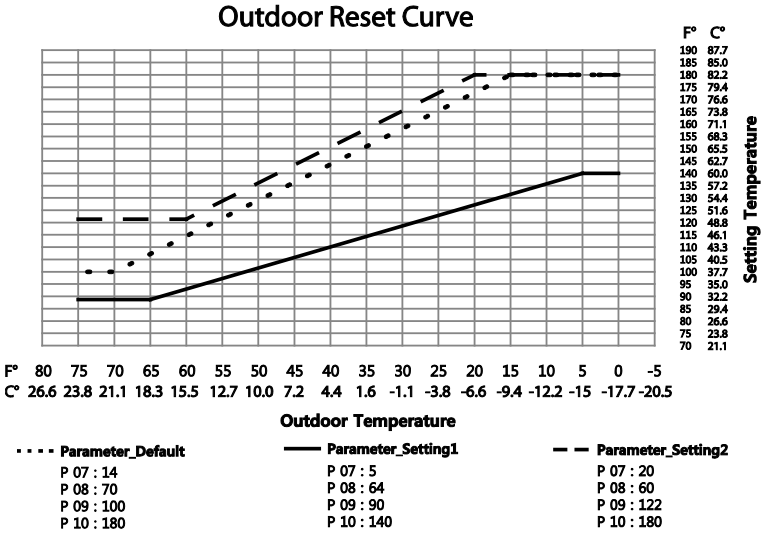
- If no buttons are pressed for 10 seconds or if the Info button is pressed, the current parameter value will be saved automatically.
- To return to the <PARAMETER INFORMATION MENU MODE>, press the [Reset] button once.
- If no buttons are pressed for five minutes, the display will automatically return to the <PARAMETER INFORMATION MENU MODE>.

5.4.4 Outdoor Reset Control (P07–P10)

The Outdoor Reset Control feature can be used to enhance energy efficiency while maintaining optimal heating performance. Outdoor Reset Control automatically changes the space heating temperature setting based on the outdoor temperature and the current space heating system application (system load).

To achieve optimal heating performance, configure the following set-points: the Outdoor Low Temperature, the Outdoor High Temperature, the heating MIN and the heating MAX Set-point configuration must be based on the ComfortAir^{+} system characteristics and installation environment.

Refer to the following examples in the graph to configure the Outdoor Reset Control feature.



* The graph above is an example of a few possible outdoor reset parameter settings. For more information about settings, refer to the following information.

* If the Outdoor Reset On (DIP switch #1 OFF) is set and the outdoor temperature sensor is not connected, or the outdoor temperature sensor value is outside the normal range, the '740' error message is displayed and the system operates the same way as with the Outdoor Reset OFF (DIP switch #1 ON) setting.

Outdoor Low Temperature Set-point (P.07)

To change the outdoor low temperature set-point:

1. In the Parameter information time mode, use the Up (+) or Down (-) buttons to select P.07. Then, press the Info button to enter the Outdoor low temperature set-point mode.

2. In the Outdoor low temperature set-point mode, use the Up (+) or Down (-) buttons to change the value and press the Info button to set to the desired mode.

Item	Description	Display
Outdoor low temperature set-point	• Sets the outdoor low temperature set-point when outdoor reset is ON (DIP switch #1 'OFF') (default: 14°F (-10℃)) • Range: -4°F (-20℃) – 59°F (15℃) • Cannot be greater than the [Outdoor high temperature set-point -9°F (5℃)]	
Unavailable	Outdoor reset is OFF (DIP switch #1 'ON')	

Note

- If no buttons are pressed for 10 seconds or if the Info button is pressed, the current parameter value will be saved automatically.
- To return to the <PARAMETER INFORMATION MENU MODE>, press the [Reset] button once.
- If no buttons are pressed for five minutes, the display will automatically return to the <PARAMETER INFORMATION MENU MODE>.

Outdoor High Temperature Set-point (P.08)

To change the outdoor high temperature set-point:

1. In the Parameter information time mode, use the Up (+) or Down (-) buttons to select P.08. Then, press the Info button to enter the Outdoor high temperature set-point mode.

2. In the Outdoor high temperature set-point mode, use the Up (+) or Down (-) buttons to change the value and press the Info button to set to the desired mode.

Item	Description	Display
Outdoor high temperature set-point	• Sets the outdoor high temperature set-point when outdoor reset is ON (DIP switch #1 'OFF') (default: 70˚F (21℃)) • Range: 5˚F (-15℃) – 104˚F (40℃) • Cannot be lower than the [Outdoor low temperature set-point + 9˚F (5℃)]	
Unavailable	Outdoor reset is OFF (DIP switch #1 'ON')	

Note

- If no buttons are pressed for 10 seconds or if the Info button is pressed, the current parameter value will be saved automatically.
- To return to the <PARAMETER INFORMATION MENU MODE>, press the [Reset] button once.
- If no buttons are pressed for five minutes, the display will automatically return to the <PARAMETER INFORMATION MENU MODE>.

Heating MIN Set-point (P.09)

To change the heating MIN set-point:

1. In the Parameter information time mode, use the Up (+) or Down (-) buttons to select P.09. Then, press the Info button to enter the Heating MIN set-point mode.

2. In the Heating MIN set-point mode, use the Up (+) or Down (-) buttons to change the value and press the Info button to set to the desired mode.

Item	Description	Display
Heating MIN set-point	• Sets the Heating MIN set-point when outdoor reset is ON (DIP switch #1 'OFF') (Default: 100˚F (37.5C)) • Range: 100˚F (37.5℃) – 140˚F (60℃) • Cannot be greater than the [CH MAX set-point - 36˚F (20℃)]	
Unavailable	Outdoor reset OFF (DIP switch #1 'ON')	

Note

- If no buttons are pressed for 10 seconds or if the Info button is pressed, the current parameter value will be saved automatically.
- To return to the <PARAMETER INFORMATION MENU MODE>, press the [Reset] button once.
- If no buttons are pressed for five minutes, the display will automatically return to the <PARAMETER INFORMATION MENU MODE>.

Heating MAX Set-point (P.10)

To change the heating MAX set-point:

1. In the Parameter information time mode, use the Up (+) or Down (-) buttons to select P.10. Then, press the Info button to enter the Heating MAX set-point mode.

2. In the Heating MAX set-point mode, use the Up (+) or Down (-) buttons to change the value and press the Info button to set to the desired mode.

Item	Description	Display
Heating MAX set-point	• Sets the Heating MAX Set-point when outdoor reset is ON (DIP switch #1 'OFF') (Default: 180˚F (82℃)) • Range: 136˚F (57.5℃) – 180˚F (82℃) • Cannot be lower than the [CH MIN set-point + 36˚F (20℃)]	
Unavailable	Outdoor reset is OFF (DIP switch #1 'ON')	

Note

- If no buttons are pressed for 10 seconds or if the Info button is pressed, the current parameter value will be saved automatically.
- To return to the <PARAMETER INFORMATION MENU MODE>, press the [Reset] button once.
- If no buttons are pressed for five minutes, the display will automatically return to the <PARAMETER INFORMATION MENU MODE>.

2-Stage T/S Output Heat-Capacity (P.11)

Models with the 2-stage air handler control function (W1, W2) can use a 2-stage thermostat or can be automatically controlled by the ComfortAir^{+} controller (If the DIP switch # 3 is OFF).

When using the automatic 2-stage heating feature, the system will modulate between the 1-stage and 2-stage based on the set heat capacity parameter of the water heater. This heat capacity value can be adjusted based on the desired modulation point (default heat capacity is 25%)

To change the 2-stage T/S output heat-capacity:

1. In the Parameter information time mode, use the Up (+) or Down (-) buttons to select P.11. Then, press the Info button to enter 2-stage T/S output heat-capacity mode.

2. In the 2 stage T/S output heat-capacity mode, use the Up (+) or Down (-) buttons to change the value and press the Info button to set to the desired mode.

Item	Description	Display
Min heat capacity – 100% (by 0.5%)	• Sets the standard modulating heat capacity value between 1-stage and 2-stage heating operation • 2-stage T/S OFF (DIP switch #3 'OFF')	
Unavailable	2-stage T/S ON (DIP switch #3 'ON')	

Note

- If no buttons are pressed for 10 seconds or if the Info button is pressed, the current parameter value will be saved automatically.
- To return to the <PARAMETER INFORMATION MENU MODE>, press the [Reset] button once.
- If no buttons are pressed for five minutes, the display will automatically return to the <PARAMETER INFORMATION MENU MODE>.

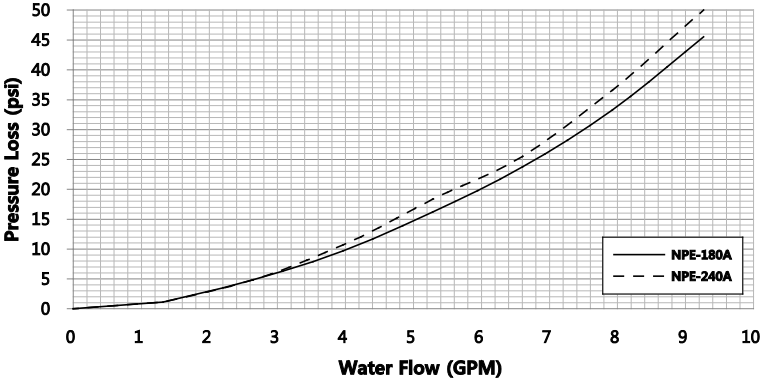
6. Maintenance

The Navien NPE-180A and NPE-240A water heaters that are used in the DHW/heating systems should be properly maintained and flushed on an annual basis. Please see the NPE Water Heater Service Manual for more details regarding annual servicing and maintenance.

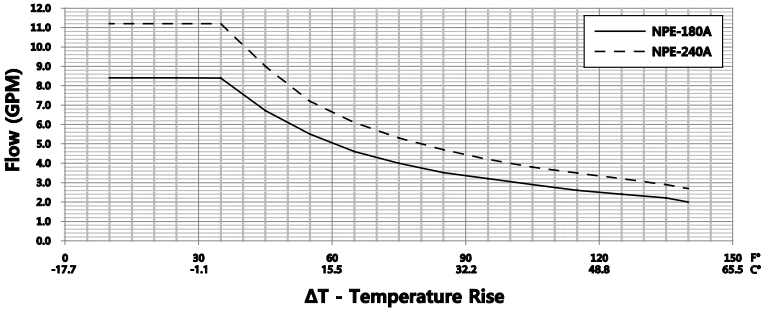
7. Appendix

This section provides additional information to be considered when you design a hydronic system using an NPE-180A/240A water heater.

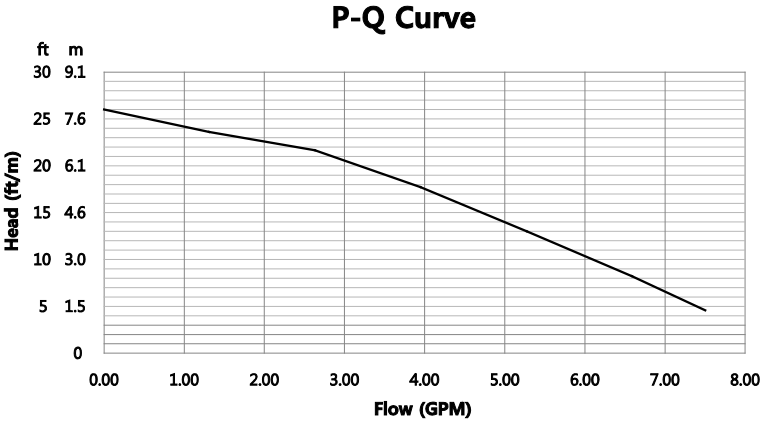
7.1 NPE-180A/240A Pressure Drop Curve



7.2 NPE-180A/240A Flow Rate Graph



7.3 NPE-180A/240A Pump P-Q Curve



Note

- When the system uses an internal circulation pump with the NPE-180A/240A water heaters, the flow rate may vary depending on the type and capacity of the AHU in use.
- If the system uses an internal circulation pump with the NPE-180A/240A water heaters or pumps manufactured by SunTherm Corporation (MMVE0S4NAAA, MMVE0M4NAAA), the flow rate will be approximately 3 GPM.

LIMITED WARRANTY NAVIEN, INC.

Warranty Period

Navien products come with a limited warranty covering parts. The following warranty periods begin to run from the date of original installation. The date of original installation must be provided to Navien, and upon request, proof of the original installation date must also be provided to Navien. When the product is installed in a new construction, the commencement date shall be dated upon which the end-user takes title to the property.

APPLICABLE WARRANTY PERIOD

Period of Coverage	
All other parts and components	3 years

Warranty Claim Procedures

To obtain warranty repair service, the end user or homeowner must contact the original installer of your Navien product. If the original installer cannot be identified, the end user or home owner may contact Navien's Technical Administration Department at (800) 519-8794. Proof of purchase is required to obtain warranty service.

Warranty Service

At its option, Navien will replace the defective component (part), in accordance with the terms of this Limited Warranty, if it fails in normal use and service during the applicable warranty period identified above. The replacement component must be Navien original factory component. Navien, at its sole discretion, may replace the product with a new or refurbished product of comparable quality and design. The replacement component or product will be warranted only for the unexpired portion of the original component's applicable warranty period. Payment for labor in completing the warranty service is subject to Navien's prior written approval and shall be subject to Navien's schedule of approved labor allowances.

Warranty Exclusions

Navien's Limited Warranty shall be void in the event of an occurrence of any of the following:

- Improper installation, failure to install in strict compliance with the Installation Manual procedures, installed by a non-licensed installer, and installation in violation of applicable rules, laws or building codes.
- Product purchased through the internet, other e-commerce channels, or any installer that obtained the product from a supplier or distributor not authorized by Navien.
- Failure to perform annual maintenance, misuse, operation at settings other than those recommended or specified, noncompliance with instructions or guidelines set forth in the User's Information Manual.
- Modification or alteration of the product in any manner, including but not limited to, removal of any component or part, addition of any non-approved components, relocating or moving the product from its original installation site, or any accidental or intentional damage to the Product.
- Installer's failure to fully comply with the warranty service and return policy procedures previously provided to installer and as is available on Navien's website. Such policies include but are not limited to the installer's failure to first contact Navien Technical Support while in front of the product for purposes of trouble shooting the identified problem or issue.
- Any damage, malfunction or failure caused by abuse, negligence, alteration, accident, fire, flood, freezing, wind, lightning and other acts of God.
- Operating, using or storing the zone pump controller in a corrosive or contaminated atmosphere or environment.
- Installation at any location outside the United States and Canada.

Other Terms: This Limited Warranty is subject further to the terms and conditions set forth herein and as may be further specified in the terms and conditions page located on Navien's website at www.navien.com. WITH THE EXCEPTION OF THIS LIMITED WARRANTY, NAVIEN DISCLAIMS ANY OBLIGATION OR LIABILITY WITH RESPECT TO THE PRODUCTS OR THEIR SALE AND USE, AND NAVIEN NEITHER ASSUMES NOR AUTHORIZES THE ASSUMPTION OF, ANY OBLIGATION OR LIABILITY IN CONNECTION WITH THE PRODUCTS. THIS DISCLAIMER INCLUDES ANY OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY RESPECTING THE PRODUCTS OR ANY PARTS OR COMPONENTS THERE OF, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANT ABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Navien's total liability for any claim arising hereunder shall not exceed the purchase price which you paid for the product. NAVIEN SHALL NOT IN ANY EVENT BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL OR LIQUIDATED DAMAGES OR PENALTIES, INCLUDING CLAIMS FOR LOST REVENUE, PROFITS OR BUSINESS OPPORTUNITIES, EVEN IF NAVIEN HAD OR SHOULD HAVE HAD ANY KNOWLEDGE, ACTUALOR CONSTRUCTIVE, OF THE POSSIBILITY OF SUCH DAMAGES.

NAVIEN

ComfortAir+

Installation Manual

Getting Service

If your ComfortAir+ requires service, you have several options for getting service:

- Contact Technical Support at 1-800-519-8794 or on the website: www.navien.com. For warranty service, always contact Technical Support first.
- Contact the technician or professional who installed your zone pump controller.
- Contact a licensed professional for the affected system (for example, a plumber or electrician).

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